

## CLAIMS

What is claimed is:

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a'
- 5            1. A vehicle interaction communication system, comprising:  
              a wireless transmitter;  
              a digitized measurement of an operational aspect of a  
moving vehicle; and  
              a controller adapted to format said digitized measurement  
and transmit said formatted digitized measurement using said wireless  
10            transmitter to an external device.
- 15            2. The vehicle interaction communication system according  
to claim 1, further comprising:  
              a wireless receiver in an adjacent vehicle; and  
              a display in said adjacent vehicle adapted to display a  
parameter relating to said digitized measurement.
- 20            3. The vehicle interaction communication system according  
to claim 1, further comprising:  
              a wireless receiver adapted to receive a signal from a  
wireless transmitter fixed to a roadway.
- 25            4. The vehicle interaction communication system according  
to claim 3, further comprising:  
              a database compiled from received measurements from a  
plurality of moving vehicles received when each of said plurality of moving  
vehicles are within range of said wireless receiver.

*50b  
a2* 5. The vehicle interaction communication system according to claim 1, wherein:

said operational aspect of said moving vehicle is a current speed of said moving vehicle.

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6. The vehicle interaction communication system according to claim 1, wherein:

said operational aspect of said moving vehicle is a current direction of said moving vehicle.

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7. The vehicle interaction communication system according to claim 1, wherein:

said operational aspect of said moving vehicle is a location of said moving vehicle.

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8. The vehicle interaction communication system according to claim 1, wherein:

said operational aspect of said moving vehicle is an indication of braking of said moving vehicle.

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9. The vehicle interaction communication system according to claim 1, wherein:

said operational aspect of said moving vehicle is an indication of measured slippage of at least one wheel of said moving vehicle.

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10. The vehicle interaction communication system according to claim 1, wherein:

said operational aspect of said moving vehicle is an indication of a lane occupied by said moving vehicle.

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11. The vehicle interaction communication system according to claim 1, wherein:

5 said operational aspect of said moving vehicle is an indication of performance of said moving vehicle.

10 12. The vehicle interaction communication system according to claim 1, wherein:

said wireless transmitter utilizes a Bluetooth protocol.

15 13. The vehicle interaction communication system according to claim 1, further comprising:

a wireless receiver; and

14. The vehicle interaction communication system according to claim 1, further comprising:

a navigational system in communication with said controller,

said navigational system being automatically responsive to traffic data

20 received over said wireless receiver without driver intervention.

*sub A3* 15. A method of communicating status information between moving vehicles, comprising:

25 measuring an operational aspect of a first vehicle in operation on a roadway;

establishing a local area network including said first vehicle; and

transmitting said measured operational aspect over said local area network.

16. The method of communicating status information between moving vehicles according to claim 15, wherein:

~~said measured operational aspect is transmitted to a second vehicle in operation on said roadway.~~

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17. The method of communicating status information between moving vehicles according to claim 15, wherein:

~~said second vehicle is adjacent said first vehicle.~~

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18. The method of communicating status information between moving vehicles according to claim 15, wherein:

~~said second vehicle is within about 30 meters of said first vehicle.~~

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19. The method of communicating status information between moving vehicles according to claim 15, wherein:

~~said operational aspect is a signal light status.~~

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20. The method of communicating status information between moving vehicles according to claim 15, wherein:

~~said operational aspect is an operational speed.~~

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21. The method of communicating status information between moving vehicles according to claim 15, further comprising:

~~establishing a temporary communication network between said first vehicle and said second vehicle.~~

22. The method of communicating status information between moving vehicles according to claim 15, further comprising:

establishing a communication network between a plurality of vehicles in motion on a roadway.

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23. The method of communicating status information between moving vehicles according to claim 22, wherein:

said communication network is a Bluetooth piconet.

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24. The method of communicating status information between moving vehicles according to claim 15, wherein:

said step of transmitting utilizes a Bluetooth protocol.

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25. A method of compiling real-time traffic data from moving vehicles, comprising:

establishing a temporary network with a transceiver in a moving vehicle;

causing measured internal vehicle data relating to an operational aspect of a vehicle in operation on a roadway from within said vehicle traveling on said roadway;

transmitting said measured internal vehicle data to said fixed transceiver over said temporary network; and

compiling said measured internal vehicle data from a plurality of vehicles as real-time traffic data.

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*SUB a4* 26. Apparatus for communicating status information between moving vehicles, comprising:

means for measuring an operational aspect of a first vehicle in operation on a roadway, and  
5 means for transmitting said measured operational aspect to a second vehicle in operation on said roadway.

27. Apparatus for compiling real-time traffic data from moving vehicles, comprising:

10 means for establishing a temporary network with a transceiver in a moving vehicle;

means for causing measured internal vehicle data relating to an operational aspect of a vehicle in operation on a roadway from within said vehicle traveling on said roadway;

15 means for transmitting said measured internal vehicle data to said fixed transceiver over said temporary network; and

means for compiling said measured internal vehicle data from a plurality of vehicles as real-time traffic data.

20 *SUB a5* 28. A road mounted transmitter, comprising:

a fixed value relating to a current speed limit; and  
an RF transmitter adapted to transmit said fixed value to passing vehicles.

25 29. The road mounted transmitter according to claim 28, wherein:

said RF transmitter is adapted to establish a local area network with a passing vehicle.

30. The road mounted transmitter according to claim 29,  
wherein:

    said local area network is a piconet.

5                 31. The road mounted transmitter according to claim 28,  
wherein:

    said RF transmitter utilizes a Bluetooth protocol.

10                 32. Apparatus comprising:  
                        a vehicle; and  
                        a wireless communication system within said vehicle, said  
                        wireless communication system comprising:  
                                a wireless transmitter,  
                                a digitized measurement of an operational  
                                aspect of a moving vehicle, and  
                                a controller adapted to format said digitized  
                                measurement and transmit said formatted digitized  
                                measurement using said wireless transmitter to a device  
                                external to a vehicle including said vehicle interaction  
                                communication system.

15                 33. A method of controlling a vehicle, comprising:  
                        establishing a local area network;  
                        receiving an operational aspect of a vehicle over said local  
                        area network; and  
                        adjusting a driver control of said vehicle based on said  
                        received operational aspect of said vehicle.

34. The method of controlling a vehicle according to claim  
33, wherein said adjusted driver control comprises at least one of:  
acceleration of said vehicle;  
braking of said vehicle; and  
5 steering of said vehicle.

35. The method of controlling a vehicle according to claim  
33, wherein said adjusted driver control comprises:  
a display for use of a driver of said vehicle.  
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36. A system for communicating with a passing vehicle on a  
roadway, comprising:  
a wireless transmitter having an antenna in a vicinity of a  
roadway sign; and  
15 sign identification data for transmission by said wireless  
transmitter relating to information contained on said roadway sign.

37. The system for communicating with a passing vehicle  
on a roadway according to claim 36, wherein:

20 said wireless transmitter includes a receiver; and  
said wireless transmitter and receiver establishing a local  
area network with an approaching vehicle.

38. The system for communicating with a passing vehicle  
25 on a roadway according to claim 36, wherein:  
said roadway sign is a stop sign; and  
said data relates to a directive for an approaching vehicle to  
stop.

39. The method for informing a moving vehicle regarding an approaching roadway sign according to claim 36, wherein:

    said roadway sign is a speed limit sign; and

    said data relates to a speed directive for an approaching

5     vehicle.

40. A method for informing a moving vehicle regarding an approaching roadway sign, comprising:

10    establishing a local area network with an approaching vehicle; and

    transmitting information regarding information contained in a roadway sign which said vehicle is approaching.

41. The method for informing a moving vehicle regarding an approaching roadway sign according to claim 40, further comprising:

    displaying in said approaching vehicle a relevant speed limit received over said local area network.

42. The method for informing a moving vehicle regarding an approaching roadway sign according to claim 40, further comprising:

    displaying in said approaching vehicle a difference between a current rate of speed of said approaching vehicle and said relevant speed limit received over said local area network.

25       43. Apparatus for informing a moving vehicle regarding an approaching roadway sign, comprising:

    means for establishing a local area network with an approaching vehicle; and

    means for transmitting information regarding information contained in a roadway sign which said vehicle is approaching.

*Sub  
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44. A method for controlling a vehicle, comprising:
- establishing a wireless network between at least two moving vehicles;
  - communicating at least one operational aspect of a first moving vehicle to a second, adjacent moving vehicle;
  - automatically adjusting at least one driver control of said first moving vehicle based on at least one operational aspect of said second, adjacent moving vehicle.

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